

REMARKS

The Office Action dated December 19, 2002 has been received, its contents carefully noted, and the applied citations thoroughly studied. Accordingly, the foregoing revisions to the claims are tendered with the conviction that patentable contrast has now been made manifest over the known prior art and certain typographical inexactitudes have been rectified to provide better form. Accordingly, all rejections tendered by the Examiner in the above-referenced Office Action are hereby respectfully traversed and reconsideration is respectfully requested.

It is believed that the foregoing revisions to the claims are within the metes and bounds of the recently articulated Supreme Court *Festo* case, in that all equivalents susceptible to capture have been retained in that one skilled in the art, at the time of this amendment, could not have reasonably be expected to have drafted a claim that would have literally encompassed any other equivalent.

Double Patenting

The Examiner has provisionally rejected claims 1 through 36 under 35 U.S.C. § 101 as claiming the same invention as that of claims 1 through 36 of copending Application No. 09/881,310. The rejection is provisional because the conflicting claims have not in fact been patented.

The instant application is a continuation-in-part of the application cited by the Examiner. If claims in the parent case mature into an issued patent, appropriate action will be taken at that time by way of terminal disclaimer or claim cancellation.

Rejections under 35 U.S.C. § 112

The Examiner has rejected claims 15, 27, 29, 36 and their dependent claims under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claims the subject matter which applicant regards as the invention.

Claims 15 and 27 have been amended in accordance with the Examiner's kind suggestions. Claim 36 has been cancelled.

With regard to the language of claim 29, "zones of designated accelerated heating" are "localized at venting means passing through said carbonaceous material". These zones are created by the addition of the accelerant to the formed monolith (see discussion hereinbelow regarding the formation of the fuel). The accelerant mixture runs into the venting means and creates a "zone of designated accelerated heating". The word "heating" was omitted in the listing of claims in the parent application, but was included in the listing of pending claims present in the Preliminary Amendment. and also appears in the listing of claims hereinabove.

Rejections under 35 U.S.C. § 102

The Examiner has rejected claims 8 and 10 through 12 under 35 U.S.C. § 102(b) as being anticipated by Chinese patent (CN) 1196382.

The Examiner has also rejected claims 8 and 10 under 35 U.S.C. § 102(b) as being anticipated by Great Britain patent (GB) 2,306,502.

While undersigned does not agree with the Examiner's assessment, claims 8 and 12 have been amended to explicitly, rather than implicitly, distinguish over prior art, and claim 11 has been cancelled.

Rejections under 35 U.S.C. § 103

The Examiner has rejected claims 27 through 30 under 35 U.S.C. § 103(a) as being unpatentable over Christian (4,243,393).

Christian discloses an extruded coal article having a hollow core (col. 2, lines 18-21). The article may be dipped in wax-like material, "to facilitate the ignition and burning of the coal and to maintain the flame produced thereby" (col. 4, lines 25-31). No statements are made as to the length of burning time or the amount of heat produced.

The Examiner states at page 5 of the Office Action "[i]t is the Examiner's position that the wax functions as an accelerant". The Examiner is mistaken. An accelerant is not something that merely makes something easier to light, but instead is something that actually speeds up (i.e., accelerates) the rate of heating of something. The wax may make the article easier to light or provide a longer burning time, but does not accelerate the rate of heating. Contrariwise, the combination of nitrates that are present in the ignition layer of the fuel of the present invention does accelerate the rate of heating (see the heat release rate profile shown in Figure 2 of the present invention), and is thus properly termed an "accelerant".

Claims 27 through 30 are directed to the shape of the fuel of the present invention, which the Examiner believes may be made by the extrusion process of Christian. The fuel of the present invention is not susceptible to extrusion techniques, but is instead made using the forming and compaction method disclosed in the instant application. The compaction steps enable the accelerant, which may be of varying viscosity, to penetrate into the base layer. This process

cannot occur with extrusion. The claims have been amended to recite that the fuel of the present invention comprises two portions.

The Examiner has rejected claims 1, 2, 4, 5, 11, 12, 32 through 36, and 39 through 43 under 35 U.S.C. § 103(a) as being unpatentable over GB 2,306,502; claim 6 under 35 U.S.C. § 103(a) as being unpatentable over GB 2,306,502 in view of Young (4,822,380); claim 7 under 35 U.S.C. § 103(a) as being unpatentable over GB 2,306,502 in view of Young (4,822,380) and Avedikian (3,934,986); and claims 3, 9, 13-26, 31, and 37-38 under 35 U.S.C. § 103(a) as being unpatentable over GB 2,306,502 in view of Avedikian (3,934,986).

With regard to GB 2,306,502, cited in each of these obviousness rejections, at page 6 of the Office Action, the Examiner states:

GB teaches the limitations of the claims other than the separate step of forming the monolith of carbonaceous material and then introducing the accelerant and pressing the carbonaceous material and accelerant. However, it is well settled that the selection of any order of performing process steps is *prima facie* obvious in the absence of new or unexpected results. GB clearly teaches a similar briquette.

Undersigned respectfully directs the Examiner's kind attention to Figure 2 and to the discussion of Figure 2 beginning at page 7, line 20 of the substitute specification. Figures 1 and 2 are graphs of heat release rates as a function of time. Conventional fuels behave as in Figure 1: a large amount of heat is released at ignition (note peak at approximately 330 kW/m^2), after which the fuel decreases to a steady-state heat release rate that is much lower than the initial peak.

Conversely, the fuel of the present invention behaves as shown in Figure 2. There is an initial peak at a much lower heat release rate (note peak at

approximately 45 kW/m²), after which the fuel reaches a steady-state heat release rate that is *higher* than the initial ignition peak.

The addition of the accelerant after forming the fuel monolith and the subsequent pressing step which includes the accelerant is instrumental in producing the unexpected results shown in Figure 2.

The fuel of the present invention is produced by forming a monolith of carbonaceous material in a mold under pressure. An accelerant composition is made, and this mixture is poured into the mold on top of the monolith of carbonaceous material. The mixture flows over the top surface and down into the venting means. The second pressing step binds the accelerant mixture to the monolith and enables further penetration of the accelerant mixture into the body of the monolith.

Thus, the accelerant “layer” of the present invention is not a layer like that disclosed in GB at page 6, lines 24-25. GB’s layer is shown in his Figures 2 and 4 as a layer with a definite thickness. The “layer” of the present invention does not have a definite thickness. Rather, the method of forming the fuel of the present invention produces a freestanding form of carbonaceous material that actually has a *gradient* of accelerant. That is, accelerant is at its greatest concentration at one surface of the fuel, and the concentration gradually decreases. A point is reached when the accelerant has penetrated no further into the original monolith, and the concentration thereafter is zero. GB discloses no such feature.

In fact, GB’s use of the term “secured to” in describing the relationship between his two layers indicates that his layer does not at all resemble the accelerant placement of the present invention. GB includes no other discussion of how his

igniting layer is made. The accelerant of the present invention is not "secured to" the original monolith; it is added in the formation process and becomes an integral part of the fuel.

Thus, the combination of GB with any other references does not render the present invention obvious. Young and Avedikian are discussed below.

Young is cited at page 6 of the Office Action as teaching the coating of the fuel. Young teaches the coating of a charcoal article with paraffin (col. 4, lines 3-24) and the coating of a coal article with latex (col. 4, lines 51-61), to produce "a clean, attractive and durable fuel product" (col. 1, line 53). The "coating" of the present invention is removable, which is distinguishable from Young. This limitation has been recited in the claims.

Avedikian is cited by the Examiner for teaching fusing means. At column 4, lines 54-64, Avedikian discloses that the fusing means pass through the venting means. All recitations of fusing means in the claims of the present invention have been amended to make it clear that the fusing means are located on the surface, or overlying the venting means, rather than passing therethrough.

It is Black Letter Law the Patent and Trademark Office's burden is to establish a prima facie case of obviousness. The Patent and Trademark Office has met its burden only when it fully describes: "1) What the reference discloses, teaches and suggests to one skilled in the art; 2) What the reference lacks in disclosing, teaching or suggesting vis-à-vis the claimed features; 3) What particular teaching or suggestion is being relied upon either via a reference itself or knowledge of person of ordinary skill in the art; 4) A statement explaining the proposed modification in order to establish the prima facie case of obviousness; and finally 5) the motivation

behind the statement of obviousness which comes from three sources: a) teachings of the prior art; b) nature of the problem to be solved; or c) knowledge of persons of ordinary skill in the art", see *In re Rouffet* 47 USPQ2d 1453 (Fed. Cir. 1998).

In the absence of such a prima facie showing, the Examiner's rejection cannot stand:

"Decision rejecting claims in utility application as obvious over combination of prior art references must be reversed, since obviousness analysis in decision is limited to discussion of ways that multiple references can be combined to read on claimed invention, but does not particularly identify any suggestion, teaching, or motivation to combine references, and does not include specific or inferential findings concerning identification of relevant art, level of ordinary skill in art, nature of problem to be solved, or any other factual findings that might support proper obviousness analysis." *In re Dembiczak*, 50 U.S.P.Q.2d 1614. [Emphasis added.]

The Examiner has failed to meet these threshold requirements to establish prima facie obviousness. It is clear that the fuel of the present invention produces unexpected results in view of the art cited by the Examiner.

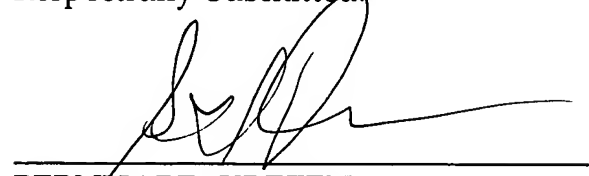
Claims 32, 34, 35, 36, 39, 41, and 42 have not been amended. The Examiner does not address the specific compound percentages of the fuel of the present invention with regard to prior art. An examination of all disclosed embodiments in GB reveals no briquette within the ranges specified by the claims of the present invention. Applicant's particular formulations produce the unexpected results discussed hereinabove.

In view of the foregoing, it is respectfully requested that the Examiner pass this case to issue. If, upon further consideration, the Examiner believes further issues remain outstanding or new ones have been generated, undersigned

respectfully requests that the Examiner call undersigned to expeditiously resolve same.

Dated: June 19, 2003

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Bernhard Kreten', is written over a horizontal line.

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